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AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method for manufacturing a transformer winding, comprising:

(a.) providing a power source;

(b.) forming a transformer winding, comprising:

winding an electrical conductor into a first plurality of turns;

placing an electrically insulating material having adhesive thereon over the first plurality of turns;

winding the electrical conductor into a second plurality of turns over the electrically insulating material; and

(c) connecting the power source to the electrical conductor; and

(d.) curing the adhesive by providing electric power from the power source to the electrical conductor so as to heat the adhesive

~~melting and curing the adhesive by energizing the electrical conductor so that a current greater than a rated current of the transformer winding flows through the electrical conductor.~~

Claim 2 (Canceled).

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Claim 3 (Currently Amended): The method of claim 2 1, wherein the power source is a direct-current power source.

Claim 4 (Currently Amended): The method of claim 2 1, further comprising providing a variable power regulator, and wherein the step of connecting the power source to the electrical conductor comprises electrically coupling the variable power regulator to the power source and the electrical conductor, and wherein the step of curing the adhesive comprises adjusting the power regulator to provide a current greater than a rated current of the transformer winding using the voltage regulator.

Claim 5 (Currently Amended): The method of claim 1, wherein ~~melting and curing the adhesive by energizing the electrical conductor so that a current greater than a rated current of the transformer winding flows through the electrical conductor comprises melting and curing the adhesive by energizing the electrical conductor so that the step of curing the adhesive is performed such that a direct current greater than the rated current of the transformer winding flows through the electrical conductor.~~

Claim 6 (Currently Amended): The method of claim 4, 5, wherein ~~melting and curing the adhesive by energizing the electrical conductor so that a current greater than a rated current of the transformer winding flows through the electrical conductor~~

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~~comprises energizing the electrical conductor so that the current greater than a rated current of the transformer winding is initially approximately~~ the step of curing the adhesive is performed such that the direct current flowing through the electrical conductor has an initial value that is about three times to approximately five times the rated current of the transformer winding.

Claim 7 (Currently Amended): The method of claim 6, further comprising incrementally reducing the direct current ~~greater than a rated current of the transformer winding~~ from an the initial value until a temperature of the electrical conductor stabilizes within a predetermined range.

Claim 8 (Currently Amended): The method of claim 4 ~~5~~, further comprising adjusting the direct current ~~greater than a rated current of the transformer winding~~ so that a temperature of the electrical conductor remains within a predetermined range.

Claim 9 (Currently Amended): The method of claim 8, wherein the step of adjusting the direct current ~~greater than a rated current of the transformer winding so that a temperature of the electrical conductor remains within a predetermined range~~ comprises adjusting the current greater than a rated current of the transformer winding ~~so~~ is performed such that the temperature of the electrical conductor remains within the predetermined range for a predetermined period.

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Claim 10 (Canceled)

Claim 11 (Currently Amended): The method of claim 2 1, ~~wherein electrically coupling the electrical conductor to the power source, and energizing the electrical conductor using the power source comprises electrically coupling the electrical conductor and~~ further comprising forming a second transformer winding with a second electrical conductor, connecting a the second electrical conductor of a the second transformer winding to the power source, and energizing the electrical conductor and the second electrical conductor on a simultaneous basis using the power source providing electric power from the power source to the second electrical conductor at the same time as the electrical conductor.

Claim 12 (Currently Amended): The method of claim 1, further comprising providing a voltmeter and an ammeter, electrically coupling the voltmeter and the ammeter to the electrical conductor, and measuring a voltage across the electrical conductor and ~~the a current greater than a rated current of~~ flowing through the transformer winding electrical conductor using the voltmeter and the ammeter.

Claim 13 (Original): The method of claim 12, further comprising calculating a temperature of the electrical conductor at a given time based on a resistance of the electrical conductor at the given time, an initial resistance of the electrical conductor, and an initial temperature of the electrical conductor.

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Claim 14 (Currently Amended): The method of claim 13, further comprising calculating the resistance of the electrical conductor at the given time based on a voltage across the electrical conductor at the given time and the current ~~greater than a rated current of the transformer winding~~ flowing through the electrical conductor at the given time.

Claim 15 (Original): The method of claim 8, wherein the predetermined range is approximately 130° C \pm approximately 15° C.

Claim 16 (Original): The method of claim 9, wherein the predetermined period is approximately twenty to approximately ninety minutes.

Claim 17 (Currently Amended): The method of claim 7, wherein incrementally reducing the direct current ~~greater than a rated current of the transformer winding from an initial value until a temperature of the electrical conductor stabilizes within a predetermined range~~ comprises reducing the direct current ~~greater than a rated current of the transformer~~ in increments of approximately 1° C.

Claim 18 (Original): The method of claim 1, wherein the electrically-insulating material is heat-curable epoxy diamond pattern coated kraft paper.

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Claim 19 (Currently Amended): The method of claim 1, wherein winding an electrical conductor into a first plurality of turns comprises winding the electrical conductor around a winding leg of a core of a transformer.

Claim 20 (Original): The method of claim 1, wherein the adhesive is a "B" stage epoxy adhesive.

Claims 21-25 (Canceled).

Claim 26 (New): A method for manufacturing a transformer, comprising:

- providing a power source;
- forming a winding comprising an electrically insulating layer disposed between a pair of electrically conductive layers, said electrically insulating layer comprising a curable resin;
- connecting the power source to the electrical conductor; and
- curing the resin by providing electric power from the power source to the electrically conductive layers so as to heat the resin.

Claim 27 (New): The method of claim 26, wherein the step of providing electric power is performed such that a direct current greater than the rated current of the winding flows through the electrically conductive layers.